

[Aug. 1951]

Bureau of Entomology and Plant Quarantine
Division of Insects Affecting Man and Animals
Savannah, Georgia

Livestock Pest Control - Field Test Report

Title of Test Duplication Horn Fly Test

Name of Cooperator T. Noble Brown

Address of Cooperator Webster, Fla.

Number of Acres in Pasture 28 acres

Name or Number of Pasture Bahia grass pasture

Date Sprayed Aug. 21, 1951

Percent of DDT in Spray 2.3%

Kind of Sprayer Used power

Number of Cattle Treated 52

Number of Horn flies per Head 400

Number of Pints of Spray Used 58

Grams of DDT per Animal 11.47

TEST RESULTS: 1

<u>Date Checked</u>	<u>Number of Insects or Percent of Animals</u>		<u>Checked by</u>
	<u>Infested</u>		
8/27/51	None		A. L. Smith
9/7/51	None		A. L. Smith
9/17/51	1 fly to 5 cows	average	A. L. Smith
9/24/51	1 fly to 5 cows	average	A.L.Smith & Noble Brown

Observations and remarks -

Cattle under test were large Herefords (purebred). Mostly grown cattle, few calves and yearlings. They were confined on 28 acre improved pasture with adequate shade. No rain occurred for about 2 weeks after spraying. Much rain occurred the third and fourth weeks. On Sept. 21 five steers were added to the test herd. These steers had not been sprayed and were loaded with flies. Inspection on the 24th did not reveal any more flies than a week previous and none were on the steers.

Bureau of Entomology and Plant Quarantine
Division of Insects Affecting Man and Animals
Savannah, Georgia

Livestock Pest Control - Field Test Report

Title of Test: - Horn fly - duplication test - - - - -
Responsible Investigator: - A. L. Smith and C. C. Skipper - - - - -
Name of Cooperator: - R. E. McDonald; Samsula, Volusia County, Fla. - - - - -
Location of Field Test: - Samsula area - - - - -
Number and Kind of Livestock: - 18 cattle (beef cattle) - - - - -
Insect Infestation: - horn flies - fly population about 1,800 flies per cow - - - - -
- - - - -
Insecticide and Formation Used: - 2.0% DDT (wetttable powder) - - - - -
20 pints used - - - - -
11 grams DDT per cow - - - - -
Date of Treatment: - Aug. 22, 1951 - - - - -
Kind of Sprayer Used: - Power - - - - -
- - - - -
Method of Application: - Spraying - - - - -
- - - - -
Amount of Insecticide Used: - 20 pints - - - - -
Grams of Insecticide Per Animal: - 11 grams actual DDT - - - - -
- - - - -
- - - - -

TEST RESULTS: 3

Date Checked	Number of Insects or Percent of Animals Infested	Checked By
8/28/51	No flies	A.L.Smith & R.E.McDonald
9/10/51	Less than 1 fly per animal average	A. L. Smith
9/20/51	Slightly over 1 fly per animal average	A.L.Smith & R.E.McDonald
Test terminated on account of excessive rains, flooding hold-up pasture making it necessary to turn cattle out into big pasture and mixing with other cattle. Making further checking impractical.		
	A. L. Smith	

Observations and remarks - breed and size of livestock, weather conditions, proximity of treated animals to untreated animals, kind of water used, or other factors affecting tests.)

Cattle were beef type, mostly Angus. Pasture was relatively small, joining large pasture with about 200 cattle that had been dipped in "Dip 3D" (.5% DDT + .025% G BHC) the day before these cattle were sprayed. No other cattle were kept in close proximity of the test herd.

Since no fly population build-up occurred in 28 days on this test, it is evident that DDT spray is as effective as it was on the original test in 1946.

Bureau of Entomology and Plant Quarantine
Division of Insects Affecting Man and Animals
Savannah, Georgia

Livestock Pest Control - Field Test Report

Title of Test: Duplication of horn fly test

Responsible Investigator: A. L. Smith

Name of Cooperator: A. L. Jackson Estate

Location of Field Test: Gainesville, Fla.

Number and Kind of Livestock: 108 cattle (Herefords)

Insect Infestation: Horn fly population about 2,200 flies per animal average

Insecticide and Formation Used: . . . DDT (wetttable powder 50%) used at
1.5% concentration

Date of Treatment: Sept. 5, 1951

Kind of Sprayer Used: Power

Method of Application: Sprayed

Amount of Insecticide Used: 20 gallons

Grams of Insecticide Per Animal: 10-48 grams per animal average over herd

Pasture contains about 1,000 acres, about half of which is prairie and half of hammock with adequate shade trees.

TEST RESULTS: 4

<u>Date Checked</u>	<u>Number of Insects or Percent of Animals Infested</u>	<u>Checked By</u>
9/14/51	None	A. L. Smith & Lovett Jackson
9/24/51	None	A.L.Smith & Lovett Jackson
9/26/51	None	Lovett Jackson

Observations and Remarks:

Cattle were large Herefords - high grades and purebreds.

Mostly grown cattle. In joining pasture is a large herd of cattle owned by the Camp Ranch which are kept dipped in toxaphene often enough to keep horn flies under control.

Due to circumstances beyond the owners' control it was necessary to move these cattle 3 weeks to the day they were sprayed and mix with other cattle. For this reason the test was terminated.

It is obvious that the treatment was highly effective as no flies were on the cattle after 21 days.

Bureau of Entomology and Plant Quarantine
Division of Insects Affecting Man and Animals
Savannah, Georgia

Livestock Pest Control - Field Test Report

Title of Test: - - - - - Duplication of horn fly test - - - - -
Responsible Investigator: - - - - - A. L. Smith - - - - -
Name of Cooperator: - - - - - P. C. Turner - - - - -
Location of Field Test: - - - - - 2 miles southeast of Umatilla, Fla. - - - - -
Number and Kind of Livestock: - - - - - Angus cattle - 47 head. - - - - -
Insect Infestation: - - - - - Horn fly population average about 600 flies per cow - - - - -
- - - - -
Insecticide and Formation Used: - - - - - DDT (50% wettable powder) 1.5% - - - - -
- - - - -
Date of Treatment: - - - - - Sept. 10, 1951 - - - - -
Kind of Sprayer Used: - - - - - Hand sprayer - - - - -
Method of Application: - - - - - Sprayed - - - - -
Amount of Insecticide Used: - - - - - 6 gallons - - - - -
Grams of Insecticide Per Animal: - - - - - 7.11 grams per head average - - - - -
Cattle kept in 400-acre pasture, wooded area with adequate shade - - - - -

TEST RESULTS: 5

Date Checked	Number of Insects or Percent of Animals Infested	Checked By
9/21/51	No flies were seen	A.L. Smith & P.C. Turner
9/29/51	1 fly to about each 3 cattle	A.L. Smith & C.M. Jones
10/6/51	About 1 fly per animal average	A.L. Smith & P.C. Turner
	(Test terminated.)	

Observations and remarks - breed and size of livestock, weather conditions, proximity of treated animals to untreated animals, kind of water used, or other factors affecting tests.)

9/21/51 Two rainy days have occurred since spraying - rained nearly all day
 No rain occurred for several days after spraying. Weather very hot.
 Pasture provided with abundant shade. No other cattle in close proximity.

9/29/51 Considerable rain during past week.

10/6/51 Very heavy rains during past week.

No heavy exposure to reinfestation but few cattle in adjoining pasture were not sprayed.

W. C. Thomas, Cooperator
Avon Park, (Hardee County) Florida
By C. C. Skipper

This test was conducted by C. C. Skipper on the ranch of W. C. Thomas, Avon Park, Florida. One hundred seventy-three cattle were sprayed on August 23, 1951 with a power sprayer using 1.5% DDT at the rate of about 1.25 pints per animal, an average of 10.0 grams of DDT per animal.

Cattle used were grade Brahman, Hereford, and Brown Swiss breeds, a little larger than average Florida range cattle. They were kept in a 700-acre native pasture with adequate shade for protection against sun. The test herd was exposed to untreated cattle in fairly close range.

Four inspections and fly counts were made over a 30-day period. Up to 12 days after treatment, no flies were seen. Nineteen days after treatment the fly population averaged about 1 fly to each 2 cattle. Thirty days after treatment the cattle were carrying an average of about 10 flies each.

Results recorded in the 1946 test were very similar to those reported above.

W. C. Thomas, Cooperator

Avon Park, (Haines County), Florida

By C. C. Skipper

This test was conducted by C. C. Skipper on the ranch of W. C. Thomas, Avon Park, Florida. One hundred twenty-five cattle were sprayed on August 23, 1951 with a power sprayer using 1.5% DDT at the rate of about 1.25 pints per animal, an average of 10.0 grams of DDT per animal.

Cattle used were grade Brahman, Hereford, and Brown Swiss breeds, a little larger than average Florida range cattle. They were kept in a 100-acre native pasture with adequate shade for protection against sun. The test herd was exposed to untreated cattle in fairly close range.

Four inspections and fly counts were made over a 30-day period. Up to 12 days after treatment, no flies were seen. Nineteen days after treatment the fly population averaged about 1 fly to each 2 cattle. Thirty days after treatment the cattle were carrying an average of about 10 flies each.

Results recorded in the 19th test were very similar to those reported above.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Bureau of Entomology and Plant Quarantine
Division of Insects Affecting Man and Animals
Savannah, Georgia

Livestock Pest Control - Field Test Report

Title of Test: - - - Duplicating 1946 horn fly test - - -
Responsible Investigator: - - - C. C. Skipper - - -
Name of Cooperator: - - - W. C. Thomas, Avon Park, Fla. - - -
Location of Field Test: - - - 6 miles east on road 64 - - -
Number and Kind of Livestock: - - - 173 head of stock cattle - - -
Insect Infestation: - - - 2,000 per head - - -
- - -
- - -
Insecticide and Formation Used: - - - 1 1/2% wettable DDT - - -
- - -
- - -
Date of Treatment: - - - 8/23/51 - - -
Kind of Sprayer Used: - - - Bean Power - - -
- - -
Method of Application: - - - Sprayed - - -
- - -
- - -
Amount of Insecticide Used: - - - 30 gallons, 1.4 pints per head - - -
Grams of Insecticide Per Animal: - - - 10 grams per head - - -
- - -
- - -

TEST RESULTS: 2

Date Checked	Number of Insects or Percent of Animals Infested	Checked By
8/30/51	None	C.C. Skipper
9/6/51	None	Owner
9/14/51	1/2 fly per animal	Owner

Observations and remarks - breed and size of livestock, weather conditions, proximity of treated animals to untreated animals, kind of water used, or other factors affecting tests.)

These cattle are of mixed native Brahms, Hereford, and Brown Swiss breeding.

I would say just a little above the average in size. Cattle were treated in the morning part of the day and were thoroughly dry before being rained on.

They were exposed to untreated cattle on all sides.

Seems to have lasted about like it did in 1946. Our records show that in 30 days after treatment there the cattle showed about 10 flies per head.

The weather was about the same as then.

Flavin S - W

5

NOV 10 1951

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

P. O. Box 246
Umatilla, Fla.
Nov. 14, 1951

To: R. C. Bushland, In Charge, Kerrville, Texas

From: A. L. Smith, P. O. Box 246, Umatilla, Fla.

Subject: Screw Worm Research

Relative to your letter of the 9th, I do not wish to make claim for medical expenses as a result of poison ivy infection. I just want to avoid it in the future as far as possible.

In view of the fact that the trapping program may be conducted over a long period of time, it is advisable to change the location of trap No. 18 on account of being inaccessible in rainy weather.

When the trap was put up, it was my understanding it would only be there a matter of a few months and the present location can be used until the rainy season of next summer but after June it is likely to be inaccessible at any time during the summer.

It will be necessary to move it about a half mile to be in a spot where it can be reached during periods of high water.

There is one other trap of those I service that may be advisable to move for lack of cooperation on the ranch foreman's part. At the time of the first trap collection several cases had occurred on the place but no record had been posted on the chart.

On the first round I made it a point to contact all cooperators to check on screw worm cases just to make sure whether they were posting them on the chart as they had agreed. The one in question was the only one failing to do so. There was nothing posted on this chart again the second collection and I was unable to contact the foreman or any of the cow boys to check on cases.

The ranch in question is trap No. 9, and it is an excellent location for a trap and the foreman gave the impression of being willing to cooperate and perhaps he will in the future, but if they continue to be careless about the record of cases I would move it.

Trap collections have been very erratic in some locations.

Mr. Graham has arrived in Orlando, and we will leave this afternoon for Sanibel Island.

ALS

A. L. Smith
S

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH ADMINISTRATION

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

P. O. Box 216
Umatilla, Fla.
Nov. 11, 1951

To: R. C. Bushland, In Charge, Kerrville, Texas

From: A. L. Smith, P. O. Box 216, Umatilla, Fla.

Subject: Screw Worm Research

Relative to your letter of the 9th, I do not wish to make claim for medical expenses as a result of poison ivy infection. I just want to avoid it in the future as far as possible.

In view of the fact that the trapping program may be conducted over a long period of time, it is advisable to change the location of trap No. 18 on account of being inaccessible in rainy weather.

When the trap was put up, it was my understanding it would only be there a matter of a few months and the present location can be used until the rainy season of next summer but after June it is likely to be inaccessible at any time during the summer.

It will be necessary to move it about a half mile to be in a spot where it can be reached during periods of high water.

There is one other trap of those I service that may be advisable to move for lack of cooperation on the ranch foreman's part. At the time of the first trap collection several cases had occurred on the place but no record had been posted on the chart.

On the first round I made it a point to contact all cooperators to check on screw worm cases just to make sure whether they were posting them on the chart as they had agreed. The one in question was the only one failing to do so. There was nothing posted on this chart again the second collection and I was unable to contact the foreman or any of the cow boys to check on cases.

The ranch in question is trap No. 9, and it is an excellent location for a trap and the foreman gave the impression of being willing to cooperate and perhaps he will in the future, but if they continue to be careless about the record of cases I would move it.

Trap collections have been very erratic in some locations.

Mr. Graham has arrived in Orlando, and we will leave this afternoon for Sanibel Island.

ALS

A. L. Smith